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and Tm-3°C, wherein said probe comprises a nucleic acid molecule, and wherein said nucleic acid molecule is selected from the group consisting of

nucleic acid molecules that hybridize to a greater extent to the genomic RNA of HIV-2 than to the genomic RNA of HIV-1 BRU under hybridization conditions of Tm-42°C;

nucleic acid molecules that hybridize to a greater extent to the genomic DNA of HIV-2 than to the genomic DNA of HIV-1 BRU under hybridization conditions of Tm-42°C;

nucleic acid molecules that hybridize to a greater extent to the genomic RNA of HIV-2 than to the genomic RNA of HIV-1 BRU under hybridization conditions of Tm-20°;

nucleic acid molecules that hybridize to a greater extent to the genomic DNA of HIV-2 than to the genomic DNA of HIV-1 BRU under hybridization conditions of Tm-20°C;

nucleic acid molecules that hybridize to a greater extent to the genomic RNA of HIV-2 than to the genomic RNA of HIV-1 BRU under hybridization conditions of Tm-3°C;

and nucleic acid molecules that hybridize to a greater extent to the genomic DNA of HIV-2 than to the genomic DNA of HIV-1 BRU under hybridization conditions of Tm-3°C;

b) washing the resulting hybrid under conditions for hybridization; and

c) detecting said hybrid.

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73. The method of claim 72, wherein said probe nucleic acid comprises cDNA.

74. The method of claim 72, wherein said probe nucleic acid comprises nucleotides 1-380 of the U3/R region of HIV-2, wherein said nucleotides 1-380 comprise the following sequence:

GTGGAAGGCG AGACTGAAAG CAAGAGGAAT ACCATTTAGT TAAAGGACAG
GAACAGCTAT ACTTGGTCAG GGCAGGAAGT AACTAACAGA AACAGCTGAG
ACTGCAGGGA CTTTCCAGAA GGGGCTGTAA CCAAGGGAGG GACATGGGAG
GAGCTGGTGG GGAACGCCTC ATATTCTCTG TATAATATAC CCGCTGCTTG
CATTGTACTT CAGTCGCTCT GCGGAGAGGC TGGCAGATTG AGCCCTGGAG
GATCTCTCCA GCACTAGACG GATGAGCCTG GGTGCCCTGC TAGACTCTCA
CCAGCACTTG GCCGGTGCTG GCAGACGGCC CCACGCTTGC CTGCTTAAAA
ACCTTCCTTA ATAAAGCTGC AGTAGAAGCA.

75. The method of claim 72, wherein said probe nucleic acid comprises a nucleotide sequence coding for the following amino acid sequence, wherein said amino acid sequence comprises nucleotides 1-1566 of the gag gene of HIV-2:

Met Gly Ala Arg Asn Ser Val Leu Arg Gly Lys Lys Ala Asp Glu
Leu Glu Arg Ile Arg Leu Arg Pro Gly Gly Lys Lys Lys Tyr Arg
Leu Lys His Ile Val Trp Ala Ala Asn Lys Leu Asp Arg Phe Gly
Leu Ala Glu Ser Leu Leu Glu Ser Lys Glu Gly Cys Gln Lys Ile
Leu Thr Val Leu Asp Pro Met Val Pro Thr Gly Ser Glu Asn Leu

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Lys Ser Leu Phe Asn Thr Val Cys Val Ile Trp Cys Ile His Ala
Glu Glu Lys Val Lys Asp Thr Glu Gly Ala Lys Gln Ile Val Arg
Arg His Leu Val Ala Glu Thr Gly Thr Ala Glu Lys Met Pro Ser
Thr Ser Arg Pro Thr Ala Pro Ser Ser Glu Lys Gly Gly Asn Tyr
Pro Val Gln His Val Gly Gly Asn Tyr Thr His Ile Pro Leu Ser
Pro Arg Thr Leu Asn Ala Trp Val Lys Leu Val Glu Glu Lys Lys
Phe Gly Ala Glu Val Val Pro Gly Phe Gln Ala Leu Ser Glu Gly
Cys Thr Pro Tyr Asp Ile Asn Gln Met Leu Asn Cys Val Gly Asp
His Gln Ala Ala Met Gln Ile Ile Arg Glu Ile Ile Asn Glu Glu
Ala Ala Glu Trp Asp Val Gln His Pro Ile Pro Gly Pro Leu Pro
Ala Gly Gln Leu Arg Glu Pro Arg Gly Ser Asp Ile Ala Gly Thr
Thr Ser Thr Val Glu Glu Gln Ile Gln Trp Met Phe Arg Pro Gln
Asn Pro Val Pro Val Gly Asn Ile Tyr Arg Arg Trp Ile Gln Ile
Gly Leu Gln Lys Cys Val Arg Met Tyr Asn Pro Thr Asn Ile Leu
Asp Ile Lys Gln Gly Pro Lys Glu Pro Phe Gln Ser Tyr Val Asp
Arg Phe Tyr Lys Ser Leu Arg Ala Glu Gln Thr Asp Pro Ala Val
Lys Asn Trp Met Thr Gln Thr Leu Leu Val Gln Asn Ala Asn Pro
Asp Cys Lys Leu Val Leu Lys Gly Leu Gly Met Asn Pro Thr Leu
Glu Glu Met Leu Thr Ala Cys Gln Gly Val Gly Gly Pro Gly Gln
Lys Ala Arg Leu Met Ala Glu Ala Leu Lys Glu Val Ile Gly Pro
Ala Pro Ile Pro Phe Ala Ala Ala Gln Gln Arg Lys Ala Phe Lys
Cys Trp Asn Cys Gly Lys Glu Gly His Ser Ala Arg Gln Cys Arg
Ala Pro Arg Arg Gln Gly Cys Trp Lys Cys Gly Lys Pro Gly His
Ile Met Thr Asn Cys Pro Asp Arg Gln Ala Gly Phe Leu Gly Leu

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Gly Pro Trp Gly Lys Lys Pro Arg Asn Phe Pro Val Ala Gln Val
Pro Gln Gly Leu Thr Pro Thr Ala Pro Pro Val Asp Pro Ala Val
Asp Leu Leu Glu Lys Tyr Met Gln Gln Gly Lys Arg Gln Arg Glu
Gln Arg Glu Arg Pro Tyr Lys Glu Val Thr Glu Asp Leu Leu His
Leu Glu Gln Gly Glu Thr Pro Tyr Arg Glu Pro Pro Thr Glu Asp
Leu Leu His Leu Asn Ser Leu Phe Gly Lys Asp Gln.

76. The method of claim 72, wherein said probe nucleic acid comprises a nucleotide sequence coding for the following amino acid sequence, wherein said amino acid sequence comprises nucleotides 1114-1524 of the gag gene of HIV-2:

Arg Lys Ala Phe Lys
Cys Trp Asn Cys Gly Lys Glu Gly His Ser Ala Arg Gln Cys Arg
Ala Pro Arg Arg Gln Gly Cys Trp Lys Cys Gly Lys Pro Gly His
Ile Met Thr Asn Cys Pro Asp Arg Gln Ala Gly Phe Leu Gly Leu
Gly Pro Trp Gly Lys Lys Pro Arg Asn Phe Pro Val Ala Gln Val
Pro Gln Gly Leu Thr Pro Thr Ala Pro Pro Val Asp Pro Ala Val
Asp Leu Leu Glu Lys Tyr Met Gln Gln Gly Lys Arg Gln Arg Glu
Gln Arg Glu Arg Pro Tyr Lys Glu Val Thr Glu Asp Leu Leu His
Leu Glu Gln Gly Glu Thr Pro Tyr Arg Glu Pro Pro Thr Glu Asp
Leu Leu His Leu Asn Ser Leu Phe Gly Lys Asp Gln.

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77. The method of claim 72, wherein said probe nucleic acid comprises a nucleotide sequence coding for the following amino acid sequence, wherein said amino acid sequence comprises nucleotides 1-405 of the gag gene of HIV-2:

Met Gly Ala Arg Asn Ser Val Leu Arg Gly Lys Lys Ala Asp Glu
Leu Glu Arg Ile Arg Leu Arg Pro Gly Gly Lys Lys Lys Tyr Arg
Leu Lys His Ile Val Trp Ala Ala Asn Lys Leu Asp Arg Phe Gly
Leu Ala Glu Ser Leu Leu Glu Ser Lys Glu Gly Cys Gln Lys Ile
Leu Thr Val Leu Asp Pro Met Val Pro Thr Gly Ser Glu Asn Leu
Lys Ser Leu Phe Asn Thr Val Cys Val Ile Trp Cys Ile His Ala
Glu Glu Lys Val Lys Asp Thr Glu Gly Ala Lys Gln Ile Val Arg
Arg His Leu Val Ala Glu Thr Gly Thr Ala Glu Lys Met Pro Ser
Thr Ser Arg Pro Thr Ala Pro Ser Ser Glu Lys Gly Gly Asn Tyr.

78. The method of claim 72, wherein said probe nucleic acid comprises a nucleotide sequence coding for the following amino acid sequence, wherein said amino acid sequence comprises nucleotides 406-1155 of the gag gene of HIV-2:

Pro Val Gln His Val Gly Gly Asn Tyr Thr His Ile Pro Leu Ser
Pro Arg Thr Leu Asn Ala Trp Val Lys Leu Val Glu Glu Lys Lys
Phe Gly Ala Glu Val Val Pro Gly Phe Gln Ala Leu Ser Glu Gly
Cys Thr Pro Tyr Asp Ile Asn Gln Met Leu Asn Cys Val Gly Asp
His Gln Ala Ala Met Gln Ile Ile Arg Glu Ile Ile Asn Glu Glu
Ala Ala Glu Trp Asp Val Gln His Pro Ile Pro Gly Pro Leu Pro
Ala Gly Gln Leu Arg Glu Pro Arg Gly Ser Asp Ile Ala Gly Thr

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Thr Ser Thr Val Glu Glu Gln Ile Gln Trp Met Phe Arg Pro Gln
Asn Pro Val Pro Val Gly Asn Ile Tyr Arg Arg Trp Ile Gln Ile
Gly Leu Gln Lys Cys Val Arg Met Tyr Asn Pro Thr Asn Ile Leu
Asp Ile Lys Gln Gly Pro Lys Glu Pro Phe Gln Ser Tyr Val Asp
Arg Phe Tyr Lys Ser Leu Arg Ala Glu Gln Thr Asp Pro Ala Val
Lys Asn Trp Met Thr Gln Thr Leu Leu Val Gln Asn Ala Asn Pro
Asp Cys Lys Leu Val Leu Lys Gly Leu Gly Met Asn Pro Thr Leu
Glu Glu Met Leu Thr Ala Cys Gln Gly Val Gly Gly Pro Gly Gln
Lys Ala Arg Leu Met Ala Glu Ala Leu Lys Glu Val Ile Gly Pro
Ala Pro Ile Pro Phe Ala Ala Ala Gln Gln.

79. The method of claim 72, wherein said probe nucleic acid comprises a nucleotide sequence coding for the following amino acid sequence, wherein said amino acid sequence comprises nucleotides 1-2673 of the env gene of HIV-2:

Met Met Asn Gln Leu Leu Ile Ala Ile Leu Leu Ala Ser Ala Cys
Leu Val Tyr Cys Thr Gln Tyr Val Thr Val Phe Tyr Gly Val Pro
Thr Trp Lys Asn Ala Thr Ile Pro Leu Phe Cys Ala Thr Arg Asn
Arg Asp Thr Trp Gly Thr Ile Gln Cys Leu Pro Asp Asn Asp Asp
Tyr Gln Glu Ile Thr Leu Asn Val Thr Glu Ala Phe Asp Ala Trp
Asn Asn Thr Val Thr Glu Gln Ala Ile Glu Asp Val Trp His Leu
Phe Glu Thr Ser Ile Lys Pro Cys Val Lys Leu Thr Pro Leu Cys
Val Ala Met Lys Cys Ser Ser Thr Glu Ser Ser Thr Gly Asn Asn
Thr Thr Ser Lys Ser Thr Ser Thr Thr Thr Thr Thr Pro Thr Asp
Gln Glu Gln Glu Ile Ser Glu Asp Thr Pro Cys Ala Arg Ala Asp

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Asn Cys Ser Gly Leu Gly Glu Glu Glu Thr Ile Asn Cys Gln Phe
Asn Met Thr Gly leu Glu Arg Asp Lys Lys Lys Gln Tyr Asn Glu
Thr Trp Tyr Ser Lys Asp Val Val Cys Glu Thr Asn Asn Ser Thr
Asn Gln Thr Gln Cys Tyr Met Asn His Cys Asn Thr Ser Val Ile
Thr Glu Ser Cys Asp Lys His Tyr Trp Asp Ala Ile Arg Phe Arg
Tyr Cys Ala Pro Pro Gly Tyr Ala Leu Leu Arg Cys Asn Asp Thr
Asn Tyr Ser Gly Phe Ala Pro Asn Cys Ser Lys Val Val Ala Ser
Thr Cys Thr Arg Met Met Glu Thr Gln Thr Ser Thr Trp Phe Gly
Phe Asn Gly Thr Arg Ala Glu Asn Arg Thr Tyr Ile Tyr Trp His
Gly Arg Asp Asn Arg Thr Ile Ile Ser Leu Asn Lys Tyr Tyr Asn
Leu Ser Leu His Cys Lys Arg Pro Gly Asn Lys Thr Val Lys Gln
Ile Met Leu Met Ser Gly His Val Phe His Ser His Tyr Gln Pro
Ile Asn Lys Arg Pro Arg Gln Ala Trp Cys Trp Phe Lys Gly Lys
Trp Lys Asp Ala Met Gln Glu Val Lys Thr Leu Ala Lys His Pro
Arg Tyr Arg Gly Thr Asn Asp Thr Arg Asn Ile Ser Phe Ala Ala
Pro Gly Lys Gly Ser Asp Pro Glu Val Ala Tyr Met Trp Thr Asn
Cys Arg Gly Glu Phe Leu Tyr Cys Asn Met Thr Trp Phe Leu Asn
Trp Ile Glu Asn Lys Thr His Arg Asn Tyr Ala Pro Cys His Ile
Lys Gln Ile Ile Asn Thr Trp His Lys Val Gly Arg Asn Val Tyr
Leu Pro Pro Arg Glu Gly Glu Leu Ser Cys Asn Ser Thr Val Thr
Ser Ile Ile Ala Asn Ile Asp Trp Gln Asn Asn Asn Gln Thr Asn
Ile Thr Phe Ser Ala Glu Val Ala Glu Leu Tyr Arg Leu Glu Leu
Gly Asp Tyr Lys Leu Val Glu Ile Thr Pro Ile Gly Phe Ala Pro
Thr Lys Glu Lys Arg Tyr Ser Ser Ala His Gly Arg His Thr Arg

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Gly Val Phe Val Leu Gly Phe Leu Gly Phe Leu Ala Thr Ala Gly
Ser Ala Met Gly Ala Arg Ala Ser Leu Thr Val Ser Ala Gln Ser
Arg Thr Leu Leu Ala Gly Ile Val Gln Gln Gln Gln Gln Leu Leu
Asp Val Val Lys Arg Gln Gln Glu Leu Leu Arg Leu Thr Val Trp
Gly Thr Lys Asn Leu Gln Ala Arg Val Thr Ala Ile Glu Lys Tyr
Leu Gln Asp Gln Ala Arg Leu Asn Ser Trp Gly Cys Ala Phe Arg
Gln Val Cys His Thr Thr Val Pro Trp Val Asn Asp Ser Leu Ala
Pro Asp Trp Asp Asn Met Thr Trp Gln Glu Trp Glu Lys Gln Val
Arg Tyr Leu Glu Ala Asn Ile Ser Lys Ser Leu Glu Gln Ala Gln
Ile Gln Gln Glu Lys Asn Met Tyr Glu Leu Gln Lys Leu Asn Ser
Trp Asp Ile Phe Gly Asn Trp Phe Asp Leu Thr Ser Trp Val Lys
Tyr Ile Gln Tyr Gly Val Leu Ile Ile Val Ala Val Ile Ala Leu
Arg Ile Val Ile Tyr Val Val Gln Met Leu Ser Arg Leu Arg Lys
Gly Tyr Arg Pro Val Phe Ser Ser Pro Pro Gly Tyr Ile Gln Gln
Ile His Ile His Lys Asp Arg Gly Gln Pro Ala Asn Glu Glu Thr
Glu Glu Asp Gly Gly Ser Asn Gly Gly Asp Arg Tyr Trp Pro Trp
Pro Ile Ala Tyr Ile His Phe Leu Ile Arg Gln Leu Ile Arg Leu
Leu Thr Arg Leu Tyr Ser Ile Cys Arg Asp Leu Leu Ser Arg Ser
Phe Leu Thr Leu Gln Leu Ile Tyr Gln Asn Leu Arg Asp Trp Leu
Arg Leu Arg Thr Ala Phe Leu Gln Tyr Gly Cys Glu Trp Ile Gln
Glu Ala Phe Gln Ala Ala Ala Arg Ala Thr Arg Glu Thr Leu Ala
Gly Ala Cys Arg Gly Leu Trp Arg Val Leu Glu Arg Ile Gly Arg
Gly Ile Leu Ala Val Pro Arg Arg Ile Arg Gln Gly Ala Glu Ile
Ala Leu Leu *** Gly Thr Ala Val Ser Ala Gly Arg Leu Tyr Glu

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Tyr Ser Met Glu Gly Pro Ser Ser Arg Lys Gly Glu Lys Phe Val
Gln Ala Thr Lys Tyr Gly.

80. A method of producing a hybridization probe for HIV-2 retrovirus
nucleic acid, said method comprising:

a) providing a recombinant cloning vector, wherein said vector
comprises a nucleic acid molecule, and wherein said nucleic acid molecule is
selected from the group consisting of

nucleic acid molecules that hybridize to a greater extent to the genomic
RNA of HIV-2 than to the genomic RNA of HIV-1 BRU under hybridization
conditions of $T_m-42^{\circ}\text{C}$;

nucleic acid molecules that hybridize to a greater extent to the genomic
DNA of HIV-2 than to the genomic DNA of HIV-1 BRU under hybridization
conditions of $T_m-42^{\circ}\text{C}$;

nucleic acid molecules that hybridize to a greater extent to the genomic
RNA of HIV-2 than to the genomic RNA of HIV-1 BRU under hybridization
conditions of T_m-20° ;

nucleic acid molecules that hybridize to a greater extent to the genomic
DNA of HIV-2 than to the genomic DNA of HIV-1 BRU under hybridization
conditions of $T_m-20^{\circ}\text{C}$;

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nucleic acid molecules that hybridize to a greater extent to the genomic RNA of HIV-2 than to the genomic RNA of HIV-1 BRU under hybridization conditions of $T_m - 3^\circ\text{C}$;

nucleic acid molecules that hybridize to a greater extent to the genomic DNA of HIV-2 than to the genomic DNA of HIV-1 BRU under hybridization conditions of $T_m - 3^\circ\text{C}$;

and nucleic acid molecules that hybridize to a greater extent to the cDNA of HIV-2 or a fragment thereof than to the genomic DNA of HIV-1 BRU under hybridization conditions of $T_m - 3^\circ\text{C}$;

b) cloning said vector in a competent cellular host; and

c) recovering the DNA recombinants.

81. The method of claim 80, wherein said probe nucleic acid comprises cDNA.

82. The method of claim 80, wherein said probe nucleic acid comprises nucleotides 1-380 of the U3/R region of HIV-2, wherein said nucleotides 1-380 comprise the following sequence:

GTGGAAGGCG	AGACTGAAAG	CAAGAGGAAT	ACCATTTAGT	TAAAGGACAG
GAACAGCTAT	ACTTGGTCAG	GGCAGGAAGT	AACTAACAGA	AACAGCTGAG
ACTGCAGGGA	CTTTCAGAA	GGGGCTGTAA	CCAAGGGAGG	GACATGGGAG
GAGCTGGTGG	GGAACGCCTC	ATATTCTCTG	TATAATATAC	CCGCTGCTTG

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CATTGTACTT CAGTCGCTCT GCGGAGAGGC TGGCAGATTG AGCCCTGGAG
GATCTCTCCA GCACTAGACG GATGAGCCTG GGTGCCCTGC TAGACTCTCA
CCAGCACTTG GCCGGTGCTG GCAGACGGCC CCACGCTTGC CTGCTTAAAA
ACCTTCCTTA ATAAAGCTGC AGTAGAAGCA.

83. The method of claim 80, wherein said probe nucleic acid comprises a nucleotide sequence coding for the following amino acid sequence, wherein said amino acid sequence comprises nucleotides 1-1566 of the gag gene of HIV-2:

Met Gly Ala Arg Asn Ser Val Leu Arg Gly Lys Lys Ala Asp Glu
Leu Glu Arg Ile Arg Leu Arg Pro Gly Gly Lys Lys Lys Tyr Arg
Leu Lys His Ile Val Trp Ala Ala Asn Lys Leu Asp Arg Phe Gly
Leu Ala Glu Ser Leu Leu Glu Ser Lys Glu Gly Cys Gln Lys Ile
Leu Thr Val Leu Asp Pro Met Val Pro Thr Gly Ser Glu Asn Leu
Lys Ser Leu Phe Asn Thr Val Cys Val Ile Trp Cys Ile His Ala
Glu Glu Lys Val Lys Asp Thr Glu Gly Ala Lys Gln Ile Val Arg
Arg His Leu Val Ala Glu Thr Gly Thr Ala Glu Lys Met Pro Ser
Thr Ser Arg Pro Thr Ala Pro Ser Ser Glu Lys Gly Gly Asn Tyr
Pro Val Gln His Val Gly Gly Asn Tyr Thr His Ile Pro Leu Ser
Pro Arg Thr Leu Asn Ala Trp Val Lys Leu Val Glu Glu Lys Lys
Phe Gly Ala Glu Val Val Pro Gly Phe Gln Ala Leu Ser Glu Gly
Cys Thr Pro Tyr Asp Ile Asn Gln Met Leu Asn Cys Val Gly Asp
His Gln Ala Ala Met Gln Ile Ile Arg Glu Ile Ile Asn Glu Glu
Ala Ala Glu Trp Asp Val Gln His Pro Ile Pro Gly Pro Leu Pro
Ala Gly Gln Leu Arg Glu Pro Arg Gly Ser Asp Ile Ala Gly Thr

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Thr Ser Thr Val Glu Glu Gln Ile Gln Trp Met Phe Arg Pro Gln
Asn Pro Val Pro Val Gly Asn Ile Tyr Arg Arg Trp Ile Gln Ile
Gly Leu Gln Lys Cys Val Arg Met Tyr Asn Pro Thr Asn Ile Leu
Asp Ile Lys Gln Gly Pro Lys Glu Pro Phe Gln Ser Tyr Val Asp
Arg Phe Tyr Lys Ser Leu Arg Ala Glu Gln Thr Asp Pro Ala Val
Lys Asn Trp Met Thr Gln Thr Leu Leu Val Gln Asn Ala Asn Pro
Asp Cys Lys Leu Val Leu Lys Gly Leu Gly Met Asn Pro Thr Leu
Glu Glu Met Leu Thr Ala Cys Gln Gly Val Gly Gly Pro Gly Gln
Lys Ala Arg Leu Met Ala Glu Ala Leu Lys Glu Val Ile Gly Pro
Ala Pro Ile Pro Phe Ala Ala Ala Gln Gln Arg Lys Ala Phe Lys
Cys Trp Asn Cys Gly Lys Glu Gly His Ser Ala Arg Gln Cys Arg
Ala Pro Arg Arg Gln Gly Cys Trp Lys Cys Gly Lys Pro Gly His
Ile Met Thr Asn Cys Pro Asp Arg Gln Ala Gly Phe Leu Gly Leu
Gly Pro Trp Gly Lys Lys Pro Arg Asn Phe Pro Val Ala Gln Val
Pro Gln Gly Leu Thr Pro Thr Ala Pro Pro Val Asp Pro Ala Val
Asp Leu Leu Glu Lys Tyr Met Gln Gln Gly Lys Arg Gln Arg Glu
Gln Arg Glu Arg Pro Tyr Lys Glu Val Thr Glu Asp Leu Leu His
Leu Glu Gln Gly Glu Thr Pro Tyr Arg Glu Pro Pro Thr Glu Asp
Leu Leu His Leu Asn Ser Leu Phe Gly Lys Asp Gln.

84. The method of claim 80, wherein said probe nucleic acid comprises a nucleotide sequence coding for the following amino acid sequence, wherein said

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amino acid sequence comprises nucleotides 1114-1524 of the gag gene of HIV-2:

Arg Lys Ala Phe Lys
Cys Trp Asn Cys Gly Lys Glu Gly His Ser Ala Arg Gln Cys Arg
Ala Pro Arg Arg Gln Gly Cys Trp Lys Cys Gly Lys Pro Gly His
Ile Met Thr Asn Cys Pro Asp Arg Gln Ala Gly Phe Leu Gly Leu
Gly Pro Trp Gly Lys Lys Pro Arg Asn Phe Pro Val Ala Gln Val
Pro Gln Gly Leu Thr Pro Thr Ala Pro Pro Val Asp Pro Ala Val
Asp Leu Leu Glu Lys Tyr Met Gln Gln Gly Lys Arg Gln Arg Glu
Gln Arg Glu Arg Pro Tyr Lys Glu Val Thr Glu Asp Leu Leu His
Leu Glu Gln Gly Glu Thr Pro Tyr Arg Glu Pro Pro Thr Glu Asp
Leu Leu His Leu Asn Ser Leu Phe Gly Lys Asp Gln.

85. The method of claim 80, wherein said probe nucleic acid comprises a nucleotide sequence coding for the following amino acid sequence, wherein said amino acid sequence comprises nucleotides 1-405 of the gag gene of HIV-2:

Met Gly Ala Arg Asn Ser Val Leu Arg Gly Lys Lys Ala Asp Glu
Leu Glu Arg Ile Arg Leu Arg Pro Gly Gly Lys Lys Lys Tyr Arg
Leu Lys His Ile Val Trp Ala Ala Asn Lys Leu Asp Arg Phe Gly
Leu Ala Glu Ser Leu Leu Glu Ser Lys Glu Gly Cys Gln Lys Ile
Leu Thr Val Leu Asp Pro Met Val Pro Thr Gly Ser Glu Asn Leu
Lys Ser Leu Phe Asn Thr Val Cys Val Ile Trp Cys Ile His Ala
Glu Glu Lys Val Lys Asp Thr Glu Gly Ala Lys Gln Ile Val Arg

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Arg His Leu Val Ala Glu Thr Gly Thr Ala Glu Lys Met Pro Ser
Thr Ser Arg Pro Thr Ala Pro Ser Ser Glu Lys Gly Gly Asn Tyr.

86. The method of claim 80, wherein said probe nucleic acid comprises a nucleotide sequence coding for the following amino acid sequence, wherein said amino acid sequence comprises nucleotides 406-1155 of the gag gene of HIV-2:

Pro Val Gln His Val Gly Gly Asn Tyr Thr His Ile Pro Leu Ser
Pro Arg Thr Leu Asn Ala Trp Val Lys Leu Val Glu Glu Lys Lys
Phe Gly Ala Glu Val Val Pro Gly Phe Gln Ala Leu Ser Glu Gly
Cys Thr Pro Tyr Asp Ile Asn Gln Met Leu Asn Cys Val Gly Asp
His Gln Ala Ala Met Gln Ile Ile Arg Glu Ile Ile Asn Glu Glu
Ala Ala Glu Trp Asp Val Gln His Pro Ile Pro Gly Pro Leu Pro
Ala Gly Gln Leu Arg Glu Pro Arg Gly Ser Asp Ile Ala Gly Thr
Thr Ser Thr Val Glu Glu Gln Ile Gln Trp Met Phe Arg Pro Gln
Asn Pro Val Pro Val Gly Asn Ile Tyr Arg Arg Trp Ile Gln Ile
Gly Leu Gln Lys Cys Val Arg Met Tyr Asn Pro Thr Asn Ile Leu
Asp Ile Lys Gln Gly Pro Lys Glu Pro Phe Gln Ser Tyr Val Asp
Arg Phe Tyr Lys Ser Leu Arg Ala Glu Gln Thr Asp Pro Ala Val
Lys Asn Trp Met Thr Gln Thr Leu Leu Val Gln Asn Ala Asn Pro
Asp Cys Lys Leu Val Leu Lys Gly Leu Gly Met Asn Pro Thr Leu
Glu Glu Met Leu Thr Ala Cys Gln Gly Val Gly Gly Pro Gly Gln
Lys Ala Arg Leu Met Ala Glu Ala Leu Lys Glu Val Ile Gly Pro
Ala Pro Ile Pro Phe Ala Ala Ala Gln Gln.

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87. The method of claim 80, wherein said probe nucleic acid comprises a nucleotide sequence coding for the following amino acid sequence, wherein said amino acid sequence comprises nucleotides 1-2673 of the env gene of HIV-2:

Met Met Asn Gln Leu Leu Ile Ala Ile Leu Leu Ala Ser Ala Cys
Leu Val Tyr Cys Thr Gln Tyr Val Thr Val Phe Tyr Gly Val Pro
Thr Trp Lys Asn Ala Thr Ile Pro Leu Phe Cys Ala Thr Arg Asn
Arg Asp Thr Trp Gly Thr Ile Gln Cys Leu Pro Asp Asn Asp Asp
Tyr Gln Glu Ile Thr Leu Asn Val Thr Glu Ala Phe Asp Ala Trp
Asn Asn Thr Val Thr Glu Gln Ala Ile Glu Asp Val Trp His Leu
Phe Glu Thr Ser Ile Lys Pro Cys Val Lys Leu Thr Pro Leu Cys
Val Ala Met Lys Cys Ser Ser Thr Glu Ser Ser Thr Gly Asn Asn
Thr Thr Ser Lys Ser Thr Ser Thr Thr Thr Thr Thr Pro Thr Asp
Gln Glu Gln Glu Ile Ser Glu Asp Thr Pro Cys Ala Arg Ala Asp
Asn Cys Ser Gly Leu Gly Glu Glu Glu Thr Ile Asn Cys Gln Phe
Asn Met Thr Gly leu Glu Arg Asp Lys Lys Lys Gln Tyr Asn Glu
Thr Trp Tyr Ser Lys Asp Val Val Cys Glu Thr Asn Asn Ser Thr
Asn Gln Thr Gln Cys Tyr Met Asn His Cys Asn Thr Ser Val Ile
Thr Glu Ser Cys Asp Lys His Tyr Trp Asp Ala Ile Arg Phe Arg
Tyr Cys Ala Pro Pro Gly Tyr Ala Leu Leu Arg Cys Asn Asp Thr
Asn Tyr Ser Gly Phe Ala Pro Asn Cys Ser Lys Val Val Ala Ser
Thr Cys Thr Arg Met Met Glu Thr Gln Thr Ser Thr Trp Phe Gly
Phe Asn Gly Thr Arg Ala Glu Asn Arg Thr Tyr Ile Tyr Trp His
Gly Arg Asp Asn Arg Thr Ile Ile Ser Leu Asn Lys Tyr Tyr Asn
Leu Ser Leu His Cys Lys Arg Pro Gly Asn Lys Thr Val Lys Gln

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Ile Met Leu Met Ser Gly His Val Phe His Ser His Tyr Gln Pro
Ile Asn Lys Arg Pro Arg Gln Ala Trp Cys Trp Phe Lys Gly Lys
Trp Lys Asp Ala Met Gln Glu Val Lys Thr Leu Ala Lys His Pro
Arg Tyr Arg Gly Thr Asn Asp Thr Arg Asn Ile Ser Phe Ala Ala
Pro Gly Lys Gly Ser Asp Pro Glu Val Ala Tyr Met Trp Thr Asn
Cys Arg Gly Glu Phe Leu Tyr Cys Asn Met Thr Trp Phe Leu Asn
Trp Ile Glu Asn Lys Thr His Arg Asn Tyr Ala Pro Cys His Ile
Lys Gln Ile Ile Asn Thr Trp His Lys Val Gly Arg Asn Val Tyr
Leu Pro Pro Arg Glu Gly Glu Leu Ser Cys Asn Ser Thr Val Thr
Ser Ile Ile Ala Asn Ile Asp Trp Gln Asn Asn Asn Gln Thr Asn
Ile Thr Phe Ser Ala Glu Val Ala Glu Leu Tyr Arg Leu Glu Leu
Gly Asp Tyr Lys Leu Val Glu Ile Thr Pro Ile Gly Phe Ala Pro
Thr Lys Glu Lys Arg Tyr Ser Ser Ala His Gly Arg His Thr Arg
Gly Val Phe Val Leu Gly Phe Leu Gly Phe Leu Ala Thr Ala Gly
Ser Ala Met Gly Ala Arg Ala Ser Leu Thr Val Ser Ala Gln Ser
Arg Thr Leu Leu Ala Gly Ile Val Gln Gln Gln Gln Gln Leu Leu
Asp Val Val Lys Arg Gln Gln Glu Leu Leu Arg Leu Thr Val Trp
Gly Thr Lys Asn Leu Gln Ala Arg Val Thr Ala Ile Glu Lys Tyr
Leu Gln Asp Gln Ala Arg Leu Asn Ser Trp Gly Cys Ala Phe Arg
Gln Val Cys His Thr Thr Val Pro Trp Val Asn Asp Ser Leu Ala
Pro Asp Trp Asp Asn Met Thr Trp Gln Glu Trp Glu Lys Gln Val
Arg Tyr Leu Glu Ala Asn Ile Ser Lys Ser Leu Glu Gln Ala Gln
Ile Gln Gln Glu Lys Asn Met Tyr Glu Leu Gln Lys Leu Asn Ser
Trp Asp Ile Phe Gly Asn Trp Phe Asp Leu Thr Ser Trp Val Lys

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Tyr Ile Gln Tyr Gly Val Leu Ile Ile Val Ala Val Ile Ala Leu
Arg Ile Val Ile Tyr Val Val Gln Met Leu Ser Arg Leu Arg Lys
Gly Tyr Arg Pro Val Phe Ser Ser Pro Pro Gly Tyr Ile Gln Gln
Ile His Ile His Lys Asp Arg Gly Gln Pro Ala Asn Glu Glu Thr
Glu Glu Asp Gly Gly Ser Asn Gly Gly Asp Arg Tyr Trp Pro Trp
Pro Ile Ala Tyr Ile His Phe Leu Ile Arg Gln Leu Ile Arg Leu
Leu Thr Arg Leu Tyr Ser Ile Cys Arg Asp Leu Leu Ser Arg Ser
Phe Leu Thr Leu Gln Leu Ile Tyr Gln Asn Leu Arg Asp Trp Leu
Arg Leu Arg Thr Ala Phe Leu Gln Tyr Gly Cys Glu Trp Ile Gln
Glu Ala Phe Gln Ala Ala Ala Arg Ala Thr Arg Glu Thr Leu Ala
Gly Ala Cys Arg Gly Leu Trp Arg Val Leu Glu Arg Ile Gly Arg
Gly Ile Leu Ala Val Pro Arg Arg Ile Arg Gln Gly Ala Glu Ile
Ala Leu Leu *** Gly Thr Ala Val Ser Ala Gly Arg Leu Tyr Glu
Tyr Ser Met Glu Gly Pro Ser Ser Arg Lys Gly Glu Lys Phe Val
Gln Ala Thr Lys Tyr Gly.

88. The method of any one of claims 72-87, wherein said probe nucleic acid comprises recombinant nucleic acid.

89. The method of claim 88, wherein said recombinant nucleic acid is labeled.